Delaware Department of Education

K–12 MATHEMATICS FRAMEWORK

ACADEMICS

In an effective mathematics system, all teachers use high-quality materials to ensure that all students have meaningful access to grade-appropriate, culturally responsive instruction within Tier 1.

To that end, system leaders take these core actions:

A1. **Materials:** Adopt high-quality mathematics instructional materials that every educator uses as an equitable foundation for realizing a system-wide mathematics instructional vision.

A2. **Access**: Provide all students with exceptionalities and multilingual students with high-quality, standards-aligned, Tier 1 instruction with the appropriate scaffolds and support.

A3. **Environment**: Create safe learning environments that affirm all students' mathematical and cultural identities and connect clearly to all students daily lives.

A4. Assessment: Implement a balanced assessment system that includes curriculum-based assessment measures, screeners, and diagnostics, and leverage the data to support teachers in recognizing student knowledge and understanding, diagnosing student needs and unfinished learning, and providing the necessary scaffolds to ensure all students have access to grade-level mathematics instruction.

Ready to act? Find detailed planning considerations and aligned resources in the Planning Workbook.

HIGH-QUALITY PROFESSIONAL LEARNING

In an effective mathematics system, all educators engage in ongoing, collaborative professional learning that builds their capacities to ensure excellent, equitable mathematics instruction within their roles and contexts.

To that end, system leaders take these core actions:

B1. Plan: Develop a system-level high-quality professional learning plan to address the needs of the varying experience levels of teachers, coaches, specialists, and administrators and support a culture of learning and growth that is expected and essential for all educators.

B2. Materials Implementation: Provide system and school administrators, teachers, coaches, and specialists with the initial and ongoing professional learning needed to understand how their high-quality materials, including their embedded supports and strategies, are designed to provide Tier 1 mathematics instruction to all students and to identify and address individual student's learning needs.

B3. School Leader Supports: Provide school leaders with the professional learning needed to understand and create structures that effectively support the use of high-quality mathematics instructional materials and the delivery of Tier 1 instruction.

B4. Teacher Collaboration: Provide all teachers responsible for teaching and supporting mathematics instruction and learning with the time for collaborative planning and data analysis.

B5. Leader Collaboration: Provide all leaders responsible for mathematics instruction with the time for collaboration and data analysis.

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COLLABORATIVE LEADERSHIP

In an effective mathematics system, a shared vision and sense of responsibility bring educators together in service of student success, while effective communication and collaboration ensure collective efficacy.

To that end, system leaders take these core actions:

C1. **Shared Vision:** Regularly communicate the school system's vision for mathematics to all internal stakeholders and each stakeholder's role in achieving that vision.

C2. Roles and Responsibilities: Establish clear roles and responsibilities for everyone responsible for mathematics programs, professional learning, and instruction, including administrators, content specialists, coaches, mathematics teachers, teachers, and leaders focused on students with disabilities, and teachers and leaders focused on multilingual learners.

C3. **Content Leadership:** Ensure that the district and its schools have a content/curriculum expert or math coach who regularly collaborates and plans with system and school leaders to lead teacher teams and coach and support teachers in the skillful use of their mathematics curriculum.

C4. **Culture and Structures:** Establish a culture and structures that support productive communication and collaboration between and within the school system and school leadership teams and staff.

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CULTURE OF ACCESS AND EQUITY

In an effective mathematics system, all resources–including time, knowledge, materials, talent, expectations, and learning opportunities–are equitably allocated to ensure that every adult and student can succeed. To that end, system leaders take these core actions:

D1. **Growth Mindset:** Establish a culture that values assets-based learning and affirms the power of every individual to grow and improve through strategic and sustained effort.

D2. **Aligned Structures:** Examine policies and structures (e.g., school schedules, staffing models) to ensure that they support access to high-quality materials with their intended design and the professional learning needed to provide skillful mathematics instruction

D3. **Course Pathways:** Create student schedules that provide all students with multiple opportunities or pathways toward the mathematics courses that will prepare and position them for success in their chosen college or career.

D4. **Opportunity to Learn:** Create school/class schedules that ensure all students, including those historically marginalized (i.e., multilingual learners, students of color, and students with an IEP), have equitable opportunities to learn mathematics with a diverse group of peers and equitable access to effective grade-level instruction and instructional time.

D5. Teacher Supports: Create onboarding plans and ongoing support structures such as mentors and curriculum coaches that ensure the long-term retention of all teachers.

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COMMUNITY AND FAMILY ENGAGEMENT

In an effective mathematics system, families and other stakeholders, including educator preparation programs, are are active and equitable partners in executing the state's mathematics vision. To that end, system leaders take these core actions:

E1. **Mathematics Vision:** Communicate the school system's vision for mathematics to families, caregivers, and the broader community.

E2. **Family Engagement:** Provide opportunities for all families and caregivers to participate in various activities that build their mathematical knowledge to support mathematics learning at home with students.

E3. **Positive Identities:** Cultivate a culture of learning that creates positive mathematical identities with families and the broader community and fosters curiosity, interest, and enjoyment in mathematics.

E4. Teacher Pipeline: Communicate with colleges and universities about mathematics teaching preparation and placement of student teachers to ensure all teacher candidates have similar, high-quality preparation experiences.

Ready to act? Find detailed planning considerations and aligned resources in the Planning Workbook.

QUESTIONS?

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